VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

CROSS REFERENCES TO RELATED APPLICATIONS

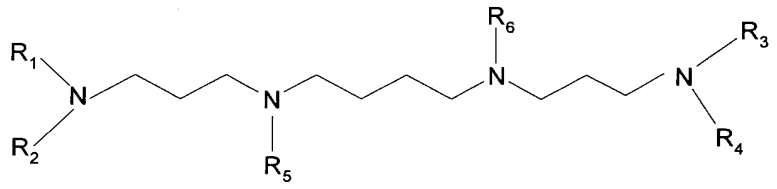
This newly added paragraph to the specification is solely to incorporate continuing application data. No changes have been made. Therefore, a marked up version is not required.

The newly added page to the specification is solely to incorporate the Abstract page. No changes have been made, therefore, a marked up version is not required.

In the claims:

Please cancel claim 32.
Please amend claims 1, 3-31.

1. (Amended) A spermine:peptide-based surfactant compound having the general structure of formula (I):



(I)

where R_1 and R_3 are hydrogen and R_2 and R_4, which may be the same or different, are peptide groups formed from one or more amino acids linked together, in a linear or branched manner, by amide (CONH) bonds and further linked to the spermine backbone by amide bonds, having the general formula (II):

$$- (A1)_{p1} - (A2)_{p2} - (A3)_{p3}$$
$$|$$
$$(A4)_{p4} \qquad \text{(II)}$$

where p1 is 0 to 5 and p2 is 1 to 5; and the values for p3 and p4, which may be the same or different, are from 0 to 5;
A1, A3 and A4, which may be the same or different, are amino acids selected from the group consisting of serine, lysine, ornithine, threonine, histidine, cysteine, arginine and tyrosine; and
A2 is an amino acid selected from the group consisting of lysine, ornithine and histidine;
and R_5 and R_6 are saturated or unsaturated hydrocarbyl groups having up to 24 carbon atoms and linked to the spermine backbone by an amide or an amine (NCH_2) linkage;
or
where R_1 and R_3 are hydrogen, R_2 and R_4, which may be the same or different are saturated or unsaturated hydrocarbyl groups having up to 24 carbon atoms and linked to the spermine backbone by amide or amine bonds, and R_5 and R_6, which may be the same or different, are peptide groups of formula (II) linked to the spermine backbone by amide bonds;
[or] and
[a salt, preferably a] pharmaceutically acceptable salts thereof.

3. (Amended) A spermine:peptide-based surfactant compound according to claim 1 [or 2] wherein in the peptide group of formula (II) p1 is 1 and p2, p3 and p4 are all 0.

4. (Amended) A spermine:peptide-based surfactant compound according to claim 1 [or 2] wherein in the peptide group of formula (II) p1 and p2 are both 1 and p3 and p4 are both 0.

5. (Amended) A spermine:peptide-based surfactant compound according to claim 1 [or 2] wherein in the peptide group of formula (II) p1 is 0 and p2, p3 and p4 are all 1.

6. (Amended) A spermine:peptide-based surfactant compound according to claim 1 [or 2] wherein in the peptide group of formula (II) p1 and p3 are 0, p2 is 1 and p4 is 2.

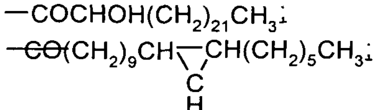
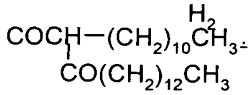
7. (Amended) A spermine:peptide-based surfactant compound according to [any one of] claim[s] 1 [to 6] wherein the A1 is serine.

8. (Amended) A spermine:peptide-based surfactant compound according to [any one of] claim[s] 1 [to 6] wherein the A2 is lysine.

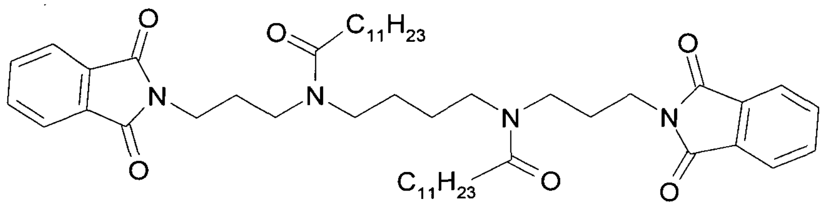
9. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the hydrocarbyl group is selected from <u>the group consisting of</u>:

$—(CH_2)_{11}CH_3$;
$—(CH_2)_{13}CH_3$;
$—(CH_2)_{15}CH_3$;
$—(CH_2)_{17}CH_3$;
$—(CH_2)_{19}CH_3$;
$—(CH_2)_{23}CH_3$;
$—(CH_2)_8CH{=}CH(CH_2)_5CH_3$;
$—(CH_2)_8CH{=}CH(CH_2)_7CH_3$;
$—(CH_2)_8CH{=}CHCH_2CH{=}CH(CH_2)_4CH_3$;
$—(CH_2)_8(CH{=}CHCH_2)_3CH_3$;
$—(CH_2)_4CH{=}CH(CH_2CH{=}CH)_3(CH_2)_4CH_3$;
$—(CH_2)_8CH{=}CH(CH_2)_5CH_3$ Trans;
$—(CH_2)_8CH{=}CH(CH_2)_7CH_3$ Trans; <u>and</u>
$—(CH_2)_9CHCH_3(CH_2)_7CH_3$.

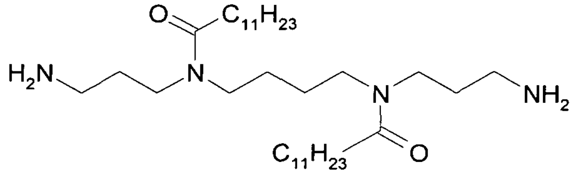
10. (Amended) A spermine:peptide-based surfactant compound according to claim 1 wherein the hydrocarbyl group is selected from <u>the group consisting of</u>:

$—CO(CH_2)_{10}CH_3$;
$—CO(CH_2)_{12}CH_3$;
$—CO(CH_2)_{14}CH_3$;
$—CO(CH_2)_{16}CH_3$;
$—CO(CH_2)_{18}CH_3$;
$—CO(CH_2)_{22}CH_3$;
$—CO(CH_2)_7CH{=}CH(CH_2)_5CH_3$;
$—CO(CH_2)_7CH{=}CH(CH_2)_7CH_3$;
$—CO(CH_2)_7CH{=}CHCH_2CH{=}CH(CH_2)_4CH_3$;
$—CO(CH_2)_7(CH{=}CHCH_2)_3CH_3$;
$—CO(CH_2)_3CH{=}CH(CH_2CH{=}CH)_3(CH_2)_4CH_3$;
$—CO(CH_2)_7CH{=}CH(CH_2)_5CH_3$ Trans;
$—CO(CH_2)_7CH{=}CH(CH_2)_7CH_3$ Trans;
$—CO(CH_2)_8CHCH_3(CH_2)_7CH_3$;
$—COCHOH(CH_2)_{21}CH_3$;
 <u>and</u>


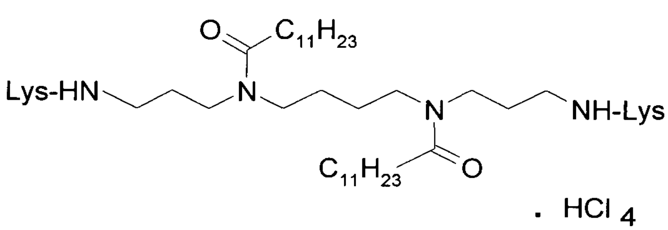
11. (Amended) The compound of claim 1 having the formula:



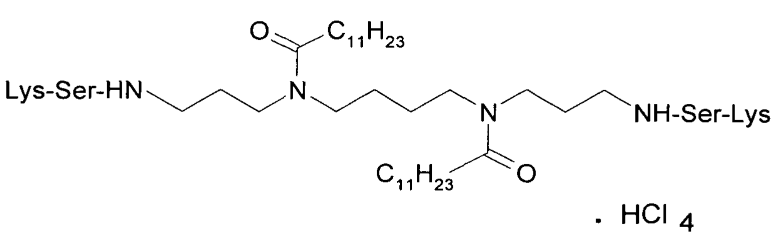
12. (Amended) The compound of claim 1 having the formula:



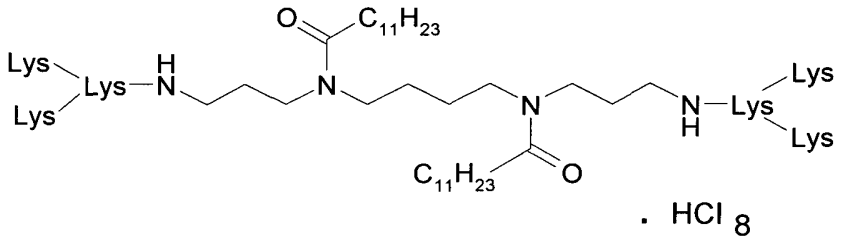
13. (Amended) The compound [GSC1 of formula] of claim 1 having the formula:



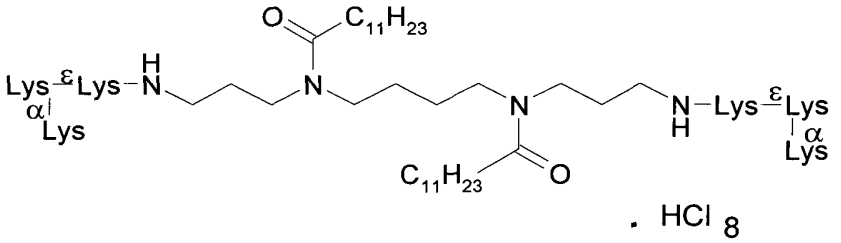
14. (Amended) The compound [GSC4 of formula] of claim 1 having the formula:



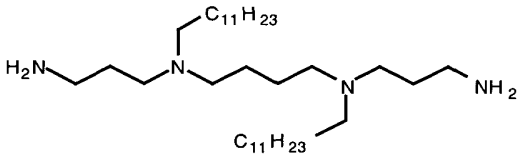
15. (Amended) The compound [GSC40 of formula] of claim 1 having the formula:



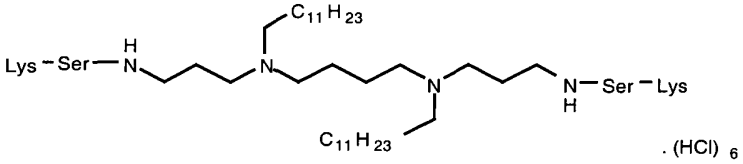
16. (Amended) The compound [GSC42 of formula] of claim 1 having the formula:



17. (Amended) The compound [GSC2 of formula] of claim 1 having the formula:



18. (Amended) The compound [GSC12 of formula] of claim 1 having the formula:



19. (Amended) [The use of a spermine:peptide-based surfactant compound as defined in any one of claims 1 to 15 in facilitating transfection of] A method of introducing DNA or RNA

polynucleotides or analogs thereof into a eukaryotic or prokaryotic cell *in vivo* or *in vitro* comprising contacting the cell with the compound of claim 1 and a DNA or RNA polynucleotide or analog thereof.

20. (Amended) The method of claim 19 [use of a spermine:peptide-based surfactant compound according to claim 19 wherein the compound] further comprising contacting the cell [is used in combination] with one or more supplements selected from the group consisting of:
(i) a neutral carrier; [or] and
(ii) a complexing reagent.

21. (Amended) The method of [use according to] claim 20 wherein the neutral carrier is dioleoyl phosphatidylethanolamine (DOPE).

22. (Amended) The method of [use according to] claim 20 wherein the complexing reagent is PLUS reagent.

23. (Amended) The method of [use according to] claim 20 wherein the complexing reagent is a peptide comprising [mainly] basic amino acids.

24. (Amended) The method of [use according to] claim 23 wherein the peptide consists of basic amino acids.

25. (Amended) The method of [use according to] claim 23 [or 24] wherein the basic amino acids are selected from lysine and arginine.

26. (Amended) The method of [use according to] claim [24] 23 wherein the peptide is polylysine or polyornithine.

27. (Amended) The method of [use according to any one of] claim[s] 19 [to 26] wherein the [oligonucleotides or] polynucleotides are [transferred] introduced into a cell[s] to achieve an antisense knock-out effect.

28. (Amended) The method of [use according to] claim 19 wherein the [oligonucleotides or] polynucleotides are [transferred] introduced into a cell[s] for gene therapy.

29. (Amended) The method of [use according to] claim 19 wherein the [oligonucleotides or] polynucleotides are [transferred] introduced into a cell[s] for genetic [immunisation] immunization (for the generation of antibodies) in whole organisms.

30. (Amended) The method [use according to any one] of claim[s] 19 [to 26] wherein the [oligonucleotides or] polynucleotides are [transferred] introduced into a cell[s] in culture.

31. (Amended) [The use of a spermine:peptide-based surfactant compound of any one of claims 1 to 18 to facilitate the transfer of a polynucleotide or an anti-infective compounds into prokaryotic or eukaryotic organism for use in anti-infective therapy] A method introducing a polynucleotide or anti-infective compound into a prokaryotic or eukaryotic organism for use in anti-infective therapy, the method comprising contacting the organism with the compound of claim 1 and a polynucleotide or anti-infective compound.